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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/679,130	10/03/2003	Andrew T. Sultenfuss	016295.1436 (DC-05224)	2208
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Baker Botts L.L.P. 910 Louisiana Street, One Shell Plaza HOUSTON, TX 77002			EXAMINER BERHANE, YOSIEF H	
			ART UNIT 2467	PAPER NUMBER
			NOTIFICATION DATE 06/25/2010	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/679,130	Applicant(s) SULTENFUSS ET AL.	
	Examiner YOSIEF BERHANE	Art Unit 2467	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/03/2003</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims **1-20** have been examined and are pending.

Information Disclosure Statement

2. An initialed and dated copy of Applicant's IDS form 1449 submitted **10/03/2003** is attached to the instant office action.

3. ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

5. (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claim 1-15 and 19-20** are rejected under 35 U.S.C. 103(a) as being unpatentable over Publication **2003/0224801** to Lovberg et al. (hereinafter Lovberg) as well as Patent **6,226,292** to Diplacido and Patent **6,393,109** to Willer.

7. **As per claim 1, 9 and 19**, Lovberg teaches an information handling system, comprising:
at least one processor(fig. 14, box 27, CPU, Lovberg);

8. at least one memory operably associated with the processor (Paragraph 0110, Lovberg, flash memory);
9. a physical layer transceiver operably associated with the memory and the processor (fig. 14, box 42, transceiver, Lovberg);
10. a communication switch operably coupled to the physical layer transceiver via a first set of board-mounted transmission lines (fig. 14, box 32a, Data link attached to transceiver and Ethernet switch, Lovberg);
11. communication port operably coupled to the communication switch via a second set of transmission lines (Fig. 14, box 30a, Ethernet switch couples to a user network through a different interface, Lovberg),
12. the communication port operable to communicatively couple to an external network connection (Fig. 14, box 30a, user network, Lovberg);
13. Lovberg does not disclose expressly: a port replicator connector operably coupled to the communication switch via a third set of board-mounted transmission lines, the port replicator connector operable to communicatively couple the information handling system to an external network connection via a port replicator mounted communication port;
14. Diplacido discloses in figure 1, a switch fabric includes three 12-port Fast Ethernet network interfaces, each one connected to twelve Fast Ethernet communications links.
15. Diplacido and Lovberg are analogous art because they are from similar fields of endeavor dealing specifically with managing communications in a network

16. At the time of the invention, It would have been obvious to one of ordinary skill in the art to modify the system of Lovberg couple a port replicator connector to a communication switch as suggested by Diplacido
17. The rationale for doing so would have been to enhance communication speed and efficiency by providing high speed data transfer in a communication network (Col. 2, lines 1-11, Diplacido)
18. Therefore it would have been obvious to combine Diplacido with Lovberg for the benefit of enhancing communication speed and efficiency to obtain the invention as specified in claim 1.
19. the combination of Diplacido and Lovberg teach do not disclose expressly: a plurality of inductive devices operably coupled to a plurality of transmission lines, the inductive devices selected and coupled to the transmission lines such that one or more electrical characteristics of selected transmission lines may be tuned to substantially approximate one or more electrical characteristics required by the external network.
20. Fig. 3, Willer discloses a plurality of inductive devices coupled to telephony wire lines. Further, as disclosed in Col. 5, lines 50-63, Willer discloses inductors are selected to insure that the impedance encountered by the two wire bus lines 20c and 20d match the input impedance of the analog terminal ends 19 to minimize capacitance and reflections. Also see Col. 6, lines 3-19.
21. Willer, Diplacido and Lovberg are analogous art because they are from similar fields of endeavor dealing specifically with managing communications in a network
22. At the time of the invention it would have been obvious to one of ordinary skill in the art to modify the combination of Diplacido and Lovberg by including inductive devices to tune electrical characteristics of a transmission line

23. The rationale to do so would have been to enhance communication reliability by preventing adverse electrical effects to damage communication via transmission lines on a network (Col. 2, lines 16-34, Willer).
24. Therefore it would have been obvious to combine Willer with Diplacido and Lovberg for the benefit of enhancing communication reliability.
25. **As per claim 2 and 10**, the combination of Lovberg, Diplacido and Willer teach further comprising positioning the inductive devices on a plurality of the transmission lines between the communication switch and the physical layer transceiver (Fig. 3, Willer discloses a plurality of inductive devices).
- 26.
27. **As per claim 3 and 11**, the combination of Lovberg, Diplacido and Willer teach comprising positioning the inductive devices on two pairs of transmission lines (fig. 3, Willer discloses inductors on multiple transmission lines),
28. the first pair of transmission lines for use in receiving information from the external network (Fig. 3, Home network, Willer)
29. and the second pair of transmission lines for use in transmitting information to the external network (Fig. 3, UPN-End equipment, Willer).
30. **As per claim 4**, the combination of Lovberg, Diplacido and Willer teach further comprising positioning the inductive devices on four pairs of transmission lines (FIG. 4, Willer discloses inductors coupled to a plurality of transmission lines),

31. each of the pairs of transmission lines operable to receive information from and transmit information to the external network (Fig. 3, Home network and UPN-End equipment, Willer).
32. **As per claim 5**, the combination of Lovberg, Diplacido and Willer teach comprising positioning the inductive devices on a plurality of the transmission lines between the communication switch and the communication port and on a plurality of the transmission lines between the communication switch and the port replicator connector (FIG. 4, Willer discloses inductors coupled to a plurality of transmission lines).
33. **As per claim 6**, the combination of Lovberg, Diplacido and Willer teach a port replicator operably coupled to the port replicator connector, the port replicator including an information handling system connector (Diplacido discloses in figure 1, a switch fabric includes three 12-port Fast Ethernet network interfaces, each one connected to twelve Fast Ethernet communications links.),
34. a communication port and a plurality of transmission lines operably coupling the information handling system connector to the communication port (Diplacido discloses in figure 1, a switch fabric includes three 12-port Fast Ethernet network interfaces, each one connected to twelve Fast Ethernet communications links.);
35. a plurality of inductive devices coupled to the second set of board-mounted transmission lines; and a plurality of inductive devices coupled to the transmission lines of the port replicator (FIG. 4, Willer discloses inductors coupled to a plurality of transmission lines).

36. **As per claim 7.** the combination of Lovberg, Diplacido and Willer teach further comprising the port replicator operable to receive and operate at least one add-on device (Diplacido discloses in figure 1, a switch fabric includes three 12-port Fast Ethernet network interfaces, each one connected to twelve Fast Ethernet communications links.).
37. **As per claim 8.** the combination of Lovberg, Diplacido and Willer teach comprising the inductive devices selected and positioned such that a communication signal produced at the communication port complies with transmission line specifications as embodied in the example of IEEE 802.3ab (Fig. 3, Willer discloses a plurality of inductive devices coupled to telephony wire lines. Further, as disclosed in Col. 5, lines 50-63, Willer discloses inductors are selected to insure that the impedance encountered by the two wire bus lines 20c and 20d match the input impedance of the analog terminal ends 19 to minimize capacitance and reflections. Also see Col. 6, lines 3-19.).
38. **As per claim 10.** the combination of Lovberg, Diplacido and Willer teach comprising of the plurality of inductive devices coupled to the first plurality of transmission lines (FIG. 4, Willer discloses inductors coupled to a plurality of transmission lines)
39. **As per claim 11.** the combination of Lovberg, Diplacido and Willer teach comprising an inductive device coupled to each of the first plurality of transmission lines (FIG. 4, Willer discloses inductors coupled to a plurality of transmission lines).
40. **As per claim 12.** the combination of Lovberg, Diplacido and Willer teach comprising the plurality of inductive devices operably coupled to the second and third pluralities of transmission lines (FIG. 4, Willer discloses inductors coupled to a plurality of transmission lines)

41. **As per claim 13.** the combination of Lovberg, Diplacido and Willer teach comprising:
inductive devices coupled to the second plurality of transmission lines (FIG. 4, Willer discloses
inductors coupled to a plurality of transmission lines);
42. and the third plurality of transmission lines operable to couple to a port replicator having
inductive devices coupled to corresponding transmission lines included therein (Diplacido
discloses in figure 1, a switch fabric includes three 12-port Fast Ethernet network interfaces, each
one connected to twelve Fast Ethernet communications links.).
43. **As per claim 14.** the combination of Lovberg, Diplacido and Willer teach the plurality of
inductive devices coupled to at least two of the pluralities of transmission devices (FIG. 4, Willer
discloses inductors coupled to a plurality of transmission lines)
44. **As per claim 15.** the combination of Lovberg, Diplacido and Willer teach: a gigabit
Ethernet switch; an inductive device operably coupled to each of the first plurality of
transmission lines (FIG. 4, Willer discloses inductors coupled to a plurality of transmission
lines);
45. and the inductive devices selected to substantially offset capacitive characteristics of the
gigabit Ethernet switch (Col. 5, lines 50-63, Willer discloses inductors are selected to insure that
the impedance encountered by the two wire bus lines 20c and 20d match the input impedance of
the analog terminal ends 19 to minimize capacitance and reflections. Also see Col. 6, lines 3-
19.).
46. **As per claim 20,** the combination of Lovberg, Diplacido and Willer teach the inductive
devices coupled between the electronic switch and the physical layer transceiver (FIG. 4, Willer
discloses inductors coupled to a plurality of transmission lines);

47. and the inductive devices selected and placed to substantially offset an electronic switch capacitance such that a communication signal produced on the communication pathway complies with transmission line specifications as embodied in IEEE 802.3ab (Fig. 3, Willer discloses a plurality of inductive devices coupled to telephony wire lines. Further, as disclosed in Col. 5, lines 50-63, Willer discloses inductors are selected to insure that the impedance encountered by the two wire bus lines 20c and 20d match the input impedance of the analog terminal ends 19 to minimize capacitance and reflections. Also see Col. 6, lines 3-19.).

48. **Claim 16-18** are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Diplacido and Willer

49. **As per claim 16.** Diplacido teaches a method for creating a compliant board-mounted gigabit Ethernet communication pathway, the board-mounted gigabit Ethernet communication pathway including a gigabit Ethernet switch coupled to a gigabit Ethernet physical layer transceiver, an Ethernet communication port and a port replicator connector through a first, second and third plurality of transmission lines, respectively, the method comprising (Diplacido discloses in figure 1, a switch fabric includes three 12-port Fast Ethernet network interfaces, each one connected to twelve Fast Ethernet communications links.):

50. Diplacido does not disclose expressly: measuring capacitive effects added to the communication pathway resulting from addition of the gigabit Ethernet switch; selecting an inductive device determined capable of reducing the additional capacitive effect of the gigabit Ethernet switch and coupling the inductive device to a plurality of the transmission lines coupled to the gigabit Ethernet switch.

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51. Willer discloses in Col. 5, lines 50-63, the capacitors 46c and 46d plus the corresponding inductor 42 (L15) are selected to insure that the impedance encountered by the two wire bus lines 20c and 20d match the input impedance of the analog terminal ends 19 to minimize capacitance and reflections.);
52. The rationale to combine Willer with Diplacido would have been to enhance communication reliability by preventing adverse electrical effects to damage communication via transmission lines on a network (Col. 2, lines 16-34, Willer).
53. **As per claim 17**, the combination of Diplacido and Willer teach coupling a selected inductive device to each of the transmission lines between the gigabit Ethernet switch and the gigabit Ethernet physical layer transceiver (FIG. 4, Willer discloses inductors coupled to a plurality of transmission lines).
54. **As per claim 18**, the combination of Diplacido and Willer teach coupling a selected inductive device to each of the plurality of transmission lines between the gigabit Ethernet switch and the Ethernet communication port (FIG. 4, Willer discloses inductors coupled to a plurality of transmission lines).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yosief Berhane whose telephone number is (571) 270-7164. The examiner can normally be reached at 9:00-6:00 Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pankaj Kumar can be reached at (571) 272-3011. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/YOSIEF BERHANE/

Examiner, Art Unit 2467

/Hong Cho/

Primary Examiner, Art Unit 2467